

Abstract

A method for improved, automated, repeatable color matching on materials with different properties is provided. The method includes color matching on different materials using acquired, manipulated, and synthetic reflectance curve data. In one example, resulting 5 synthesized reflectance data is employed in formulating a matching colorant.

An example method uses a spectrophotometer to collect reflectance curve data from a physical sample colored to a desired color. The reflectance curve data is employed to produce computer display outputs of substrates as they would appear if colored with the desired color. The method includes using a colorimeter to collect colorimetric data from the outputs on the 10 display. The sets of colorimetric data are compared and data that facilitate manipulating the reflectance curve data associated with the desired color is produced. The synthetic reflectance curve data facilitates producing matches for the various substrates as colored and displayed on the computer display. The synthetic reflectance curve data may also be used to manipulate colorant formulae.

15 It is emphasized that this abstract is provided to comply with the rules requiring an abstract that will allow a searcher or other reader to quickly ascertain the subject matter of the application. It is submitted with the understanding that it will not be used to interpret or limit the scope or meaning of the claims. 37 CFR 1.72(b).